



2KG Training



Riaan Breedt

Reliability and Condition Monitoring

2 Days

R4 950 excl VAT

2 CPD points

AIM OF COURSE

Reliability is the ability of a system to perform its required function under stated conditions for a specified period of time. In real life however, actual plant reliability is almost always lower than it was designed for and built to achieve.

Research shows that only 11% of failures are age related with 89% due to random failure. The following are the main causes for these failures:

Poor design, poor quality manufacture, incorrect installation, incorrect commissioning, incorrect operation, unnecessary routine maintenance, excessively invasive maintenance and bad workmanship

This course addresses these reasons for not achieving this 'design reliability' It presents a typical reliability program; the implementation thereof and trains attendees in the key areas of plant reliability with particular focus on the differences that can be achieved by focusing at shop floor level.

ABOUT THE PRESENTER

Riaan Breedt has a BSc Eng (Mech) from Pretoria University followed by a 20 career perfecting rotordynamic design and developing high speed test equipment. Riaan founded the company Vibrakon in 1984 that mainly dealt with machine rotordynamic design; the development of high-speed test equipment; the solving of related machine dynamic problems, and vibration analysis of industrial equipment.

From 1990 to 1997 Riaan was involved in the introduction of "SKF Condition Monitoring" to the South African market with Vibrakon (his company founded in 1984) responsible for marketing, sales, implementation and training of the then newly introduced SKF products. A team of eight people were involved with this task with Riaan responsible for the installation and commissioning of the first on-line vibration monitoring system on a paper machine in South Africa at Mondi Kraft, Richards Bay.

1997 – 2009 have been spent rendering consulting services to clients, with the emphasis on implementation, training and operating reliability programs as part of their maintenance strategies. The platform for introducing these reliability programs is the Design Maintenance Systems Inc. (DMSI) software (Maintelligence), marketed in South Africa by Vibrakon.

WHO SHOULD ATTEND?

Plant Engineers, Reliability Engineers Consulting Engineers, Maintenance Managers, Instrumentation Technicians, Pump Operators, Artisans, Mechanical Foremen, Process Engineers and Equipment Specialists.



COURSE OUTLINE

1. RELIABILITY PROGRAM BASICS

- Introduction
- Program audit
- Program implementation

2. ASSET CARE

- Precision Maintenance (Procedures & Standards)
- Lubrication application
- Contamination control

3. ASSET MONITORING

- Vibration
- Oil Analysis
- Infrared thermography
- General Plant Health Inspections
- Precision Machine Health Inspections

4. ASSET IMPROVEMENT

- Root Cause Failure Analysis

5. RELIABILITY PROGRAM BENEFITS

- Reduced maintenance costs
- Increased MTBF
- Increased profits

Condition monitoring techniques are described in detail including the latest trends in Vibration and Oil Analysis and Infrared Thermography.

